WHAT IS CLAIMED IS:

1. A patch antenna, comprising:

a dielectric substrate having a top side and a bottom side;

two conducting patches respectively disposed on the top and the bottom sides of the dielectric substrate, at least one of the two conducting patches defining a plurality of matching holes for impedance match tuning; and

a feeding cable comprising an inner conductor and an outer conductor, the inner conductor electrically connected to one conducting patch and the outer conductor electrically connected to another conducting patch.

2. The patch antenna as claimed in claim 1, wherein the matching holes are distributed in a straight line.

3. The patch antenna as claimed in claim 2, wherein the conducting patches have symmetrical geometry shapes and the matching holes are located in a center line of the conducting patches.

4. The patch antenna as claimed in claim 1, wherein the conducting patches comprise a top radiating patch and a bottom radiating patch.

5. The patch antenna as claimed in claim 1, wherein the dielectric substrate is air.

6. The patch antenna as claimed in claim 1, wherein the matching holes have the same dimension.

7. The patch antenna as claimed in claim 1, wherein the antenna has a support portion situated between and perpendicular to the conducting patches for supporting the conducting patches.

8. The patch antenna as claimed in claim 4, wherein the top and the bottom radiating patches are in effect the grounding planes of each other.

9. A dual-patch antenna, comprising:

a top radiating patch;

a bottom radiating patch being separately parallel to the top radiating patch

and having the same dimension as the top radiating patch;

a feeding cable inserted between the top and the bottom radiating patches and comprising an inner conductor and an outer conductor, the inner conductor and the outer conductor separately electrically connected to the top and the bottom radiating patches; and

a support portion situated between and perpendicular to the two radiating patches for supporting the radiating patches.

10. The dual-patch antenna as claimed in claim 9, wherein at least one of the two radiating patches defines a plurality of matching holes for impedance match tuning.

11. The dual-patch antenna as claimed in claim 9, wherein the radiating patches are both rectangular.

12. The dual-patch antenna as claimed in claim 10, wherein the matching holes distribute in a center line on the radiating patches.

13. The dual-patch antenna as claimed in claim 9, wherein the outer conductor of the feeding cable is located on the surface and in the center line of the bottom radiating patch.

14. The dual-patch antenna as claimed in claim 9, wherein the support portion comprises a plastic rod.

15. A patch antenna comprising:

a first conducting patch;

a second conducting patch spatially parallel to and aligned with the first conducting patch; and

a feeding cable including an inner conductor electrically connected to the first conducting patch around a first portion of the first conducting patch, and an outer conductor electrically connected to the second conducting patch around a second portion of the second conducting patch; wherein

a plurality of matching holes are formed around at least one of said first and

second portions.

16. The patch antenna as claimed in claim 15, wherein said plurality of matching holes are arranged along a line of one of said first and second conducting patch.

17. The patch antenna as claimed in claim 15, wherein a space between said first and second conducting patches is filled with air.

18. The patch antenna as claimed in claim 15, wherein a space between said first and second conducting patches is filled with an insulative substrate.

19. The patch antenna as claimed in claim 17, wherein said mating holes additionally functions as heat dissipation means.

20. The patch antenna as claimed in claim 15, wherein both said first and second patches are equipped with said matching holes.